

SEC. _____. VIRTUAL CURRENCIES AND THEIR GLOBAL USE.

(a) REPORT.—Not later than 2 years after the date of enactment of this Act, the Secretary of the Treasury, in consultation with the Attorney General, the United States Trade Representative, the Board of Governors of the Federal Reserve System, the Office of the Director of National Intelligence, and any other agencies or departments that the Secretary of the Treasury determines are necessary, shall submit to the Committee on Agriculture, Nutrition, and Forestry, Committee on Finance, the Committee on Banking, Housing, and Urban Affairs, the Committee on Foreign Relations, and the Committee on the Judiciary of the Senate and the Committee on Agriculture, the Committee on Ways and Means, the Committee on Foreign Affairs, the Committee on the Judiciary, and Committee on Financial Services of the House of Representatives a report on virtual currency and their global use, which shall—

(1) assess how foreign countries use and mine virtual currencies, including identifying the largest state and private industry users and miners of virtual currency, policies foreign countries have adopted to encourage virtual currency use and mining, and how foreign countries could be strengthened or undermined by the use and mining of cryptocurrencies within their borders;

(2) identify, to the greatest extent practicable, the types and dollar value of virtual currency mined for each of fiscal years 2016 through 2022 within the United States and globally, as well as within the People's Republic of China and within any other countries the Secretary of the Treasury determines are relevant; and

(3) identify vulnerabilities, including those related to supply disruptions and technology availability of the global microelectronic supply chain, and opportunities with respect to virtual currency mining operations.

(b) CLASSIFIED ANNEX.—The report required under subsection (a) shall be submitted in unclassified form, but may contain a classified annex.

SA 2002. Ms. ROSEN (for herself and Mr. WICKER) submitted an amendment intended to be proposed to amendment SA 1502 proposed by Mr. SCHUMER to the bill S. 1260, to establish a new Directorate for Technology and Innovation in the National Science Foundation, to establish a regional technology hub program, to require a strategy and report on economic security, science, research, innovation, manufacturing, and job creation, to establish a critical supply chain resiliency program, and for other purposes; which was ordered to lie on the table; as follows:

At the end of title I of division F, add the following:

Subtitle D—Teach CS Act

SEC. 6131. SHORT TITLE.

This subtitle may be cited as the “Teacher Education for Computer Science Act” or the “Teach CS Act”.

SEC. 6132. TEACHER QUALITY ENHANCEMENT.

Section 204(a)(4)(G)(i) of the Higher Education Act of 1965 (20 U.S.C. 1022c(a)(4)(G)(i)) is amended by inserting “and development of computational thinking skills” after “integrate technology”.

SEC. 6133. ENHANCING TEACHER EDUCATION.

Section 232(c)(2) of the Higher Education Act of 1965 (20 U.S.C. 1032a(c)(2)) is amended by inserting “and development of computational thinking skills,” after “technology”.

SEC. 6134. TEACHER EDUCATION PROGRAMS FOR COMPUTER SCIENCE EDUCATION.

Part B of title II of the Higher Education Act of 1965 is amended (20 U.S.C. 1021 et seq.) by adding at the end the following:

“Subpart 6—Teacher Education Programs for Computer Science Education

“SEC. 259. TEACHER EDUCATION PROGRAMS FOR COMPUTER SCIENCE EDUCATION.

“(a) PROGRAM AUTHORIZED.—From the amounts appropriated to carry out this section, the Secretary may award competitive grants to eligible institutions to establish centers of excellence in teacher education programs to support computer science education and computational thinking skill development.

“(b) USE OF FUNDS.—A grant awarded to an eligible institution under this section—

“(1) shall be used by such institution to ensure that current and future teachers meet the applicable State certification and licensure requirements in a field that will enable them to teach computer science in their State at the elementary and secondary school levels, by—

“(A) creating teacher education programs that meet the requirements of section 200(6)(A)(iv) and offer, through hands-on and classroom teaching activities with in-service teachers—

“(i) doctoral, master’s, or bachelor’s degrees in teaching computer science at the elementary school and secondary school levels; or

“(ii) teaching endorsements in computer science, in the case of a teacher with related State certification and licensure requirements or a student who is pursuing certification and licensure requirements in related fields, such as mathematics and science;

“(B) ensuring that current and future teachers who graduate from such programs meet the applicable State certification and licensure requirements, including any requirements for certification obtained through alternative routes to certification, or, with regard to special education teachers, the qualifications described in section 612(a)(14)(C) of the Individuals with Disabilities Education Act;

“(C) recruiting individuals to enroll in such programs, including subject matter experts and professionals in fields related to computer science; and

“(D) awarding scholarships and fellowships of not more than \$4,000 per student based on financial need and to recruit traditionally underrepresented groups in computer science to help such students pay the cost of attendance (as defined in section 472); and

“(2) may be used by such institution to conduct research in computer science education and computational thinking skills to improve instruction in such areas.

“(c) DURATION.—

“(1) IN GENERAL.—A grant under this section shall be awarded for 5 years, conditional upon a satisfactory report to the Secretary of progress with respect to the program carried out with the grant after the first 3 years of the grant period.

“(2) REPORT OF PROGRESS.—Such report of progress on the program shall include data on the number of students and instructors enrolled, information on former graduates (including on how many earn teaching certification or licensure in a field that will enable them to teach computer science in their State at the secondary level, be prepared to teach computer science at the elementary level, and support students in developing computational thinking skills), and data on any additional funding (other than Federal funds) received to carry out the program.

“(d) APPLICATION.—

“(1) IN GENERAL.—An eligible institution desiring a grant under this section shall sub-

mit an application to the Secretary, at such time in such manner, and containing such information as the Secretary may require, which shall include—

“(A) a demonstration of the need for teachers with the certification or licensure requirements that enable them to teach computer science at the elementary and secondary level in the geographic area or State in which the institution is located;

“(B) the plan to ensure the longevity of the program after the end of the grant; and

“(C) the plan to scale up the program (including the plan for the number of personnel to be hired, a description of their expected qualifications and titles, the number of fellowships and scholarships to be awarded, the estimated administrative expenses, proposed academic advising strategy, and organizing and outreach to maintain virtual community of computer science educators).

“(2) EQUITABLE DISTRIBUTION.—The Secretary shall award grants under this section in a manner that ensures an equitable distribution of grants—

“(A) to rural and urban eligible institutions;

“(B) to eligible institutions that qualify for a waiver under subsection (e)(2); and

“(C) to eligible institutions that are located in areas where there is a need for increasing computer science education opportunities.

“(e) MATCHING REQUIREMENT.—

“(1) IN GENERAL.—To receive a grant under this section, an eligible entity shall provide, from non-Federal sources, an amount that is not less than 50 percent of the amount of the grant, which may be provided in cash or in-kind, to carry out the activities supported by the grant.

“(2) WAIVER.—The Secretary shall waive all or part of the matching requirement described in paragraph (1) for any fiscal year the Secretary determines that applying such requirement to the eligible institution would result in serious hardship or an inability to carry out the authorized activities described in this section.

“(f) REPORT TO CONGRESS.—Not later than 2 years after the first grant is awarded under this section and each year thereafter, the Secretary shall submit to Congress a report on the success of the program based on metrics determined by the Secretary, including the number of centers established, the number of enrolled students, and the number of qualified teachers.

“(g) TECHNICAL ASSISTANCE.—The Secretary shall use up to 5 percent of the amount appropriated for each fiscal year to provide technical assistance to eligible institutions.

“(h) DEFINITIONS.—In this section:

“(1) ELIGIBLE INSTITUTION.—The term ‘eligible institution’ means an institution of higher education, as defined in section 101, which may be in a partnership with a non-profit organization.

“(2) COMPUTER SCIENCE.—The term ‘computer science’ means the study of computers, including algorithmic processes and the study of computing principles and theories, as defined by a State, and may include instruction or learning on—

“(A) computer programming or coding as a tool to—

“(i) create software, such as applications, games, and websites; and

“(ii) process, manage, analyze, or manipulate data;

“(B) development and management of computer hardware related to sharing, processing, representing, securing, and using digital information; and

“(C) computational thinking skills and interdisciplinary problem-solving to equip

students with the skills and abilities necessary to apply computational thinking in the digital world.

“(3) COMPUTATIONAL THINKING.—The term ‘computational thinking’ means critical thinking skills that—

“(A) include knowledge of how problems and solutions can be expressed in such a way that allows them to be modeled or solved using a computer or machine;

“(B) include the use of strategies related to problem decomposition, pattern matching, abstractions, modularity, and algorithm design; and

“(C) involve creative problem solving skills and are applicable across a wide range of disciplines and careers.”.

SA 2003. Mr. PAUL (for himself, Mr. JOHNSON, Mr. TUBERVILLE, Mr. MARSHALL, Mr. BRAUN, and Mr. TILLIS) proposed an amendment to amendment SA 1502 proposed by Mr. SCHUMER to the bill S. 1260, to establish a new Directorate for Technology and Innovation in the National Science Foundation, to establish a regional technology hub program, to require a strategy and report on economic security, science, research, innovation, manufacturing, and job creation, to establish a critical supply chain resiliency program, and for other purposes; as follows:

At the appropriate place, insert the following:

SEC. ____ . PROHIBITION ON FUNDING FOR GAIN-OF-FUNCTION RESEARCH CONDUCTED IN CHINA.

(a) IN GENERAL.—No funds made available to any Federal agency, including the National Institutes of Health, may be used to conduct gain-of-function research in China.

(b) DEFINITION OF GAIN-OF-FUNCTION RESEARCH.—In this section, the term ‘‘gain-of-function research’’ means any research project that may be reasonably anticipated to confer attributes to influenza, MERS, or SARS viruses such that the virus would have enhanced pathogenicity or transmissibility in mammals.

SA 2004. Mr. SASSE (for himself and Mr. BENNET) submitted an amendment intended to be proposed to amendment SA 1502 proposed by Mr. SCHUMER to the bill S. 1260, to establish a new Directorate for Technology and Innovation in the National Science Foundation, to establish a regional technology hub program, to require a strategy and report on economic security, science, research, innovation, manufacturing, and job creation, to establish a critical supply chain resiliency program, and for other purposes; which was ordered to lie on the table; as follows:

At the appropriate place in title V of division B, insert the following:

SEC. ____ . PLAN FOR ARTIFICIAL INTELLIGENCE DIGITAL ECOSYSTEM.

(a) IN GENERAL.—Not later than 1 year after the date of the enactment of this Act, the Director of National Intelligence shall—

(1) develop a plan for the development and resourcing of a modern digital ecosystem that embraces state-of-the-art tools and modern processes to enable development, testing, fielding, and continuous update of artificial intelligence-powered applications at speed and scale from headquarters to the tactical edge; and

(2) submit to the Select Committee on Intelligence of the Senate and the Permanent Select Committee on Intelligence of the

House of Representatives the plan developed under paragraph (1).

(b) CONTENTS OF PLAN.—At a minimum, the plan required by subsection (a) shall include the following:

(1) A roadmap for adopting a hoteling model to allow trusted small- and medium-sized artificial intelligence companies access to classified facilities on a flexible basis.

(2) An open architecture and an evolving reference design and guidance for needed technical investments in the proposed ecosystem that address issues, including common interfaces, authentication, applications, platforms, software, hardware, and data infrastructure.

(3) A governance structure, together with associated policies and guidance, to drive the implementation of the reference throughout the intelligence community on a federated basis.

(c) FORM.—The plan submitted under subsection (a)(2) shall be submitted in unclassified form, but may include a classified annex.

SA 2005. Mrs. BLACKBURN (for herself and Mr. LUJÁN) submitted an amendment intended to be proposed to amendment SA 1502 proposed by Mr. SCHUMER to the bill S. 1260, to establish a new Directorate for Technology and Innovation in the National Science Foundation, to establish a regional technology hub program, to require a strategy and report on economic security, science, research, innovation, manufacturing, and job creation, to establish a critical supply chain resiliency program, and for other purposes; which was ordered to lie on the table; as follows:

At the end of title V of division B, add the following:

SEC. ____ . STUDY ON NATIONAL LABORATORY CONSORTIUM FOR CYBER RESILIENCE.

(a) STUDY REQUIRED.—The Secretary of Energy shall, in consultation with the Secretary of Homeland Security and the Secretary of Defense, conduct a study to analyze the feasibility of authorizing a consortia within the National Laboratory system to address information technology and operational technology cybersecurity vulnerabilities in critical infrastructure (as defined in section 1016(e) of the Critical Infrastructure Protection Act of 2001 (42 U.S.C. 5195c(e))).

(b) ELEMENTS.—The study required under subsection (a) shall include the following:

(1) An analysis of any additional authorities needed to establish a research and development program to leverage the expertise at the Department of Energy National Laboratories to accelerate development and delivery of advanced tools and techniques to defend critical infrastructure against cyber intrusions and enable resilient operations during a cyber attack.

(2) Evaluation of potential pilot programs in research, innovation transfer, academic partnerships, and industry partnerships for critical infrastructure protection research.

(3) Identification of and assessment of near-term actions, and cost estimates, necessary for the proposed consortia to be established and effective at a broad scale expeditiously.

(c) REPORT.—

(1) IN GENERAL.—Not later than 120 days after the date of the enactment of this Act, the Secretary of Energy shall submit to the appropriate committees of Congress a report on the findings of the Secretary with respect to the study conducted under subsection (a).

(2) FORM.—The report submitted under paragraph (1) shall be submitted in unclassified form, but may include a classified annex.

(3) APPROPRIATE COMMITTEES OF CONGRESS DEFINED.—In this subsection, the term ‘‘appropriate committees of Congress’’ means—

(A) the Committee on Energy and Natural Resources, the Committee on Armed Services, the Committee on Homeland Security and Government Affairs, and the Select Committee on Intelligence of the Senate; and

(B) the Committee on Energy and Commerce, the Committee on Armed Services, the Committee on Homeland Security, and the Permanent Select Committee on Intelligence of the House of Representatives.

SA 2006. Mr. HAGERTY submitted an amendment intended to be proposed to amendment SA 1502 proposed by Mr. SCHUMER to the bill S. 1260, to establish a new Directorate for Technology and Innovation in the National Science Foundation, to establish a regional technology hub program, to require a strategy and report on economic security, science, research, innovation, manufacturing, and job creation, to establish a critical supply chain resiliency program, and for other purposes; which was ordered to lie on the table; as follows:

At the appropriate place, insert the following:

SEC. ____ . REASONABLE, NON-DISCRIMINATORY ACCESS TO ONLINE COMMUNICATIONS PLATFORMS; BLOCKING AND SCREENING OF OFFENSIVE MATERIAL.

(a) IN GENERAL.—Part I of title II of the Communications Act of 1934 (47 U.S.C. 201 et seq.) is amended—

(1) by striking section 230; and

(2) by adding at the end the following:

“SEC. 232. REASONABLE, NON-DISCRIMINATORY ACCESS TO ONLINE COMMUNICATIONS PLATFORMS; BLOCKING AND SCREENING OF OFFENSIVE MATERIAL.

“(a) FINDINGS.—Congress finds the following:

“(1) The rapidly developing array of internet and other interactive computer services available to individual Americans represent an extraordinary advance in the availability of educational and informational resources to our citizens.

“(2) These services often offer users a great degree of control over the information that they receive, as well as the potential for even greater control in the future as technology continues to develop.

“(3) The internet and other interactive computer services offer a forum for a true diversity of political discourse and viewpoints, unique opportunities for cultural development, and myriad avenues for intellectual activity, and regulation of the internet must be tailored to supporting those activities.

“(4) The internet and other interactive computer services have flourished, to the benefit of all Americans, with a minimum of government regulation, and regulation should be limited to what is necessary to preserve the societal benefits provided by the internet.

“(5) Increasingly Americans rely on internet platforms and websites for a variety of political, educational, cultural, and entertainment services and for communication with one another.

“(b) POLICY.—It is the policy of the United States—